

DATE: MAY 16, 2013

TO: SHANNON MCMORROW

FROM: JOHN MIKLOS

CC: JAY BAKER, STEFFENIE WIDOWS

RE: U.S. FISH AND WILDLIFE SERVICE MIGRATORY BIRDS MEETING

BTC NO: 676-03.03

Pursuant to the request of the U.S. Fish and Wildlife Service (USFWS) and in accordance with the Migratory Bird Treaty Act (1918) (MBTA) and the Bald and Golden Eagle Protection Act (1940) (BGEPA), Bio-Tech Consulting Inc (BTC) conducted aerial surveys along the entire length of the proposed All Aboard Florida commuter passenger rail project right-of-way (ROW), extending from Orlando International Airport to Downtown Miami, Florida. The purpose of the aerial surveys was to determine the approximate extent, if any, of the utilization on the subject site by federally protected migratory birds, in particular the Bald Eagle (*Haliaeetus leucocephalus*) and Audubon's Crested Caracara (*Polyborus plancus audubonii*).

Bald Eagle

Two (2) helicopter Bald Eagle nest surveys were conducted within the proposed All Aboard Florida commuter passenger rail project ROW. The first aerial survey was flown on December 3, 2012, beginning at Orlando International Airport and ending in Jupiter, Florida. The second aerial survey was flown on May 13, 2013, beginning at Orlando International Airport and ending in Downtown Miami, Florida. During both surveys, the helicopter maintained a flight path within 400-feet of the proposed project ROW. The weather conditions during the surveys were clear and sunny on both December 3rd and May 13th. The objectives of the survey were to determine if the proposed project ROW fell within the primary (330-foot) or secondary (660-foot) protection buffer of any documented or undocumented Bald Eagle nest. Four (4) Florida Fish and Wildlife Conservation Commission (FFWCC) documented nests were identified through the use of the FFWCC Bald Eagle Nest Locator (2012) for investigation during the survey. The identified nests included, OR-065, OR-002, OR-075, and PB-022 (Figures 1-3). Only three (3) of the nests were determined to be active during this past 2012-2013 nesting season. Nests OR-065, OR-075, and PB-022 all had at least one adult eagle observed perched at or near the nest tree at the time of the surveys. Nest OR-002 was not found during either aerial survey. According to the FFWCC's Bald Eagle Nest Locator, that nest has not been active since 1981. Regarding nest OR-065, both the primary and secondary protection buffer zones of the nest lie within one of the proposed development footprints of the All Aboard Florida

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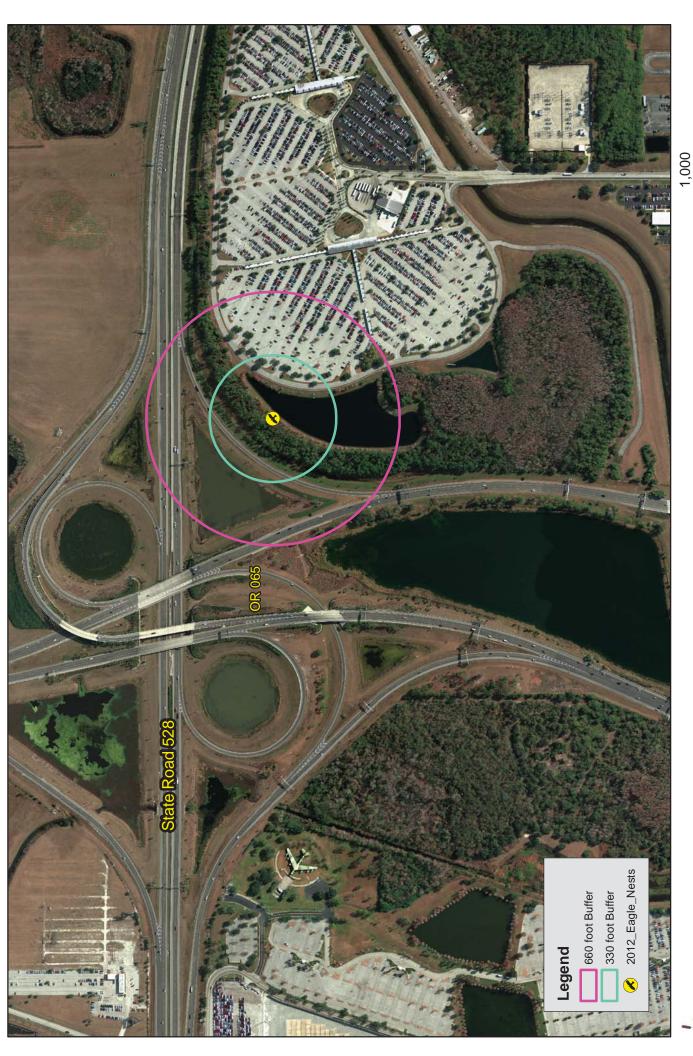
> Jacksonville Office 2036 Forbes Street Jacksonville, FL 32204

BTC MEMO

commuter passenger rail. Neither nest OR-75 nor nest PB-022 nor their protection buffers lie within the proposed project limits.

Audubon's Crested Caracara

Pursuant to the U.S. Fish and Wildlife Service, a formal Audubon's Crested Caracara survey must be conducted for any site that is slated for development and is within 300m (1,000 feet) of a nest. Thus, a survey was conducted in order to determine the approximate extent, if any, of the Audubon's Crested Caracara utilization on the subject site. One (1) aerial survey and six (6) field surveys were conducted by BTC biologists during the Caracara breeding season. The aerial survey took place on April 17, 2013 and the field surveys took place on January 25th, February 8th, 21st, March 8th, 20th, and April 3rd of 2013. Two (2) field survey stations were established (Figure 4a). One station was located just south of State Road 528 ROW on east bank of the St. John's River. The second monitoring station was located just north of State Road 528 ROW, but still on the east bank of the St. John's River. A confirmed Caracara sighting was established from the north field survey station on February 21, 2013. The bird was observed flying in from the south and landed in the pasture area to the northeast of the north survey station. The bird spent approximately thirty (30) minutes foraging in the pasture then flew off-site to the northeast. Caracaras were also observed during the helicopter aerial survey on April 17, 2013. Four (4) adult birds were observed perched on the ground to the far northeast of the north field survey station (Figure 4b). However, no Caracara nest was determined to be located within 1000-feet north or south of the development footprint of the proposed All Aboard Florida commuter passenger rail project. The closest known Caracara nest is located approximately three (3) miles to the northeast of the proposed All Aboard Florida rail project development footprint within the St. John's National Wildlife Refuge (Figure 4b). The second closest known nest is located approximately five (5) miles to the southeast of the proposed All Aboard Florida rail project development footprint within Canaveral Marshes Conservation Area (Figure 4c). These nests were located by the USFWS. The St. John's River Water Management District (SJRWMD) manages the Canaveral Marshes Conservation Area and the USFWS manages the St. John's National Wildlife Refuge. According to the nest data from the SJRWMD as provided by the USFWS, both nests were determined active and fledged chick(s) as of the 2006/2007 nesting season.



Orange County, Florida Figure 1 Bald Eagle Nest Map All Aboard Florida

> 2002 E. Robinson St. Orlando, FL 32803 Ph: 407-894-5969 Fax: 407-894-5970

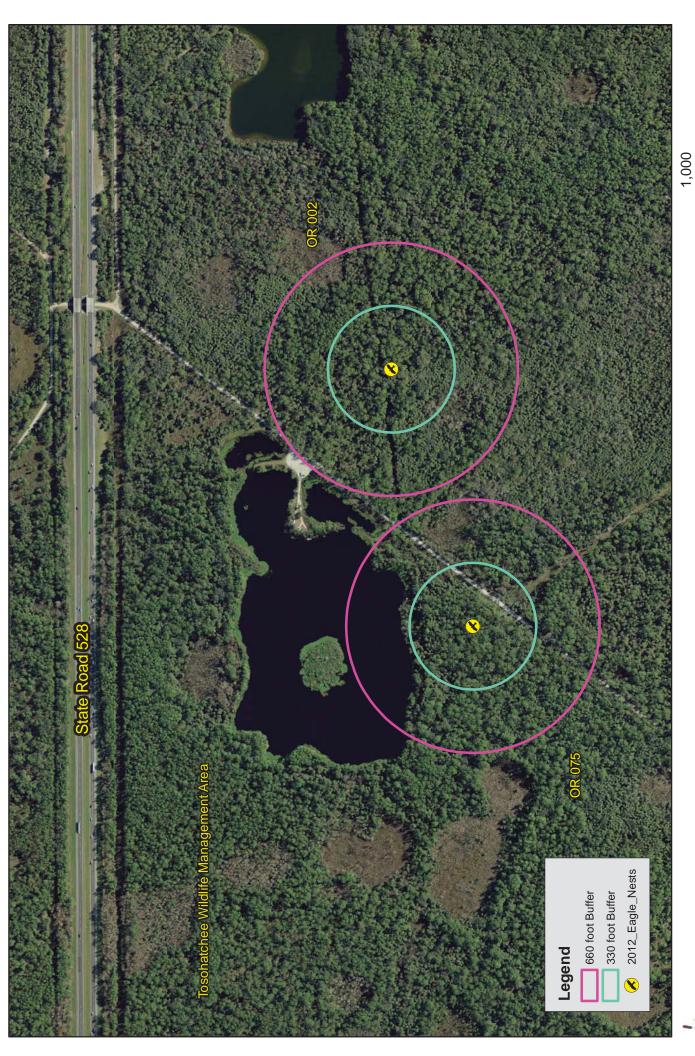
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Bio-Tech Consulting Inc.

Environmental and Permitting Services



Project #: 676-03 Produced by: SAW Date: 15 May 2013



Orange County, Florida Figure 2 Bald Eagle Nest Map All Aboard Florida

2002 E. Robinson St. Orlando, FL 32803 Ph: 407-894-5969 Fax: 407-894-5970

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Palm Beach County, Florida Figure 3 Bald Eagle Nest Map All Aboard Florida

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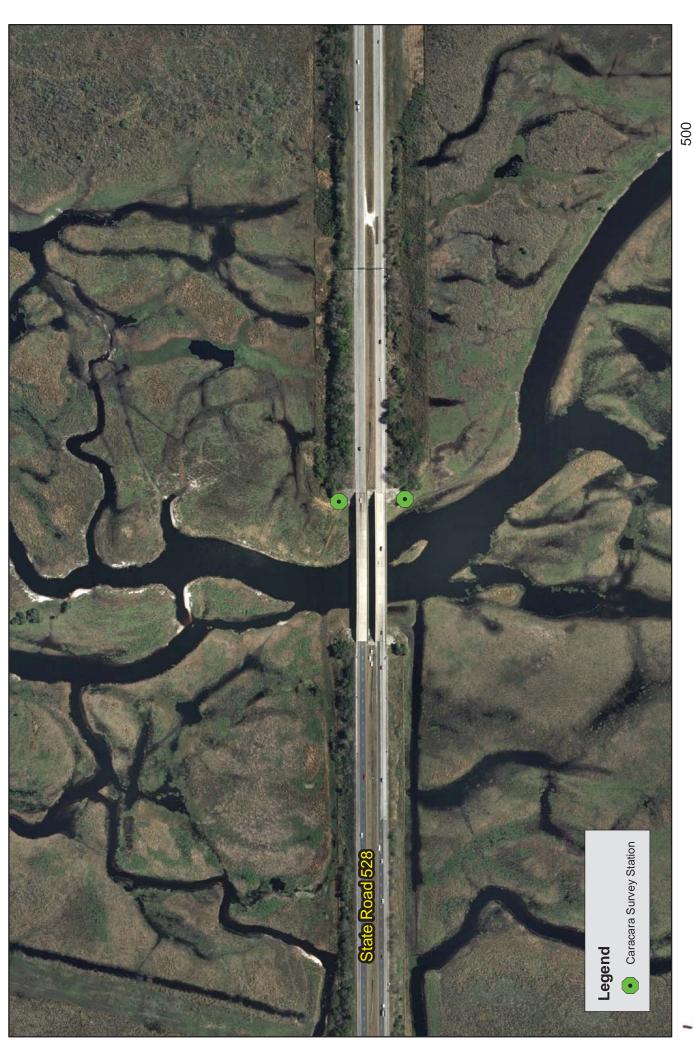
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Orange & Brevard Counties, Florida Caracara Survey Map All Aboard Florida Figure 4a

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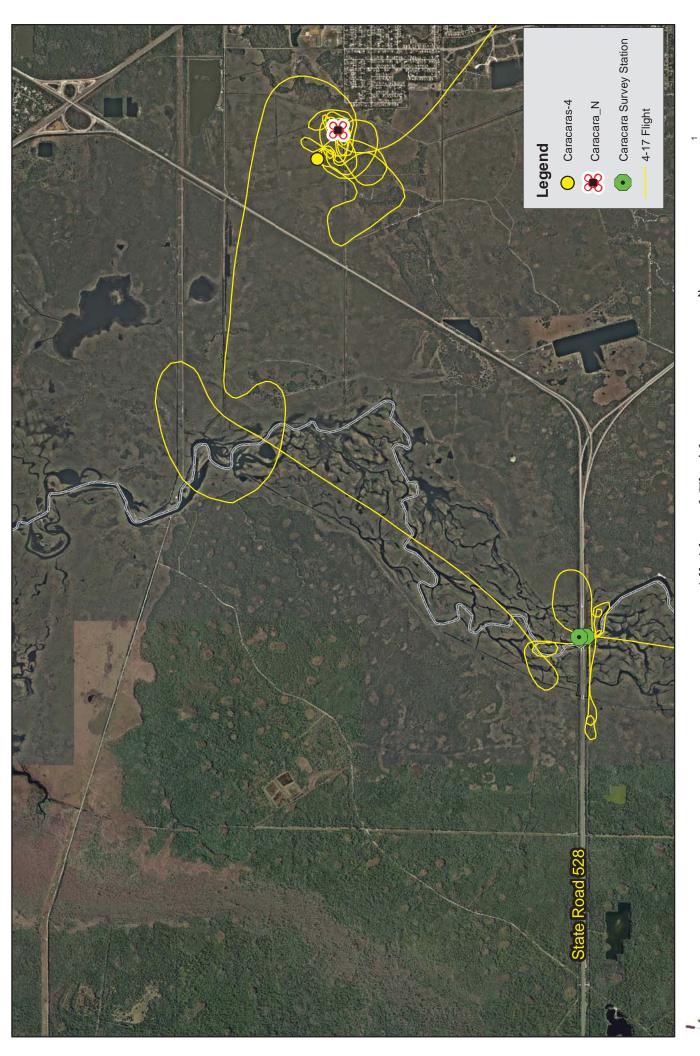
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Orange & Brevard Counties, Florida Caracara Survey Map All Aboard Florida Figure 4b

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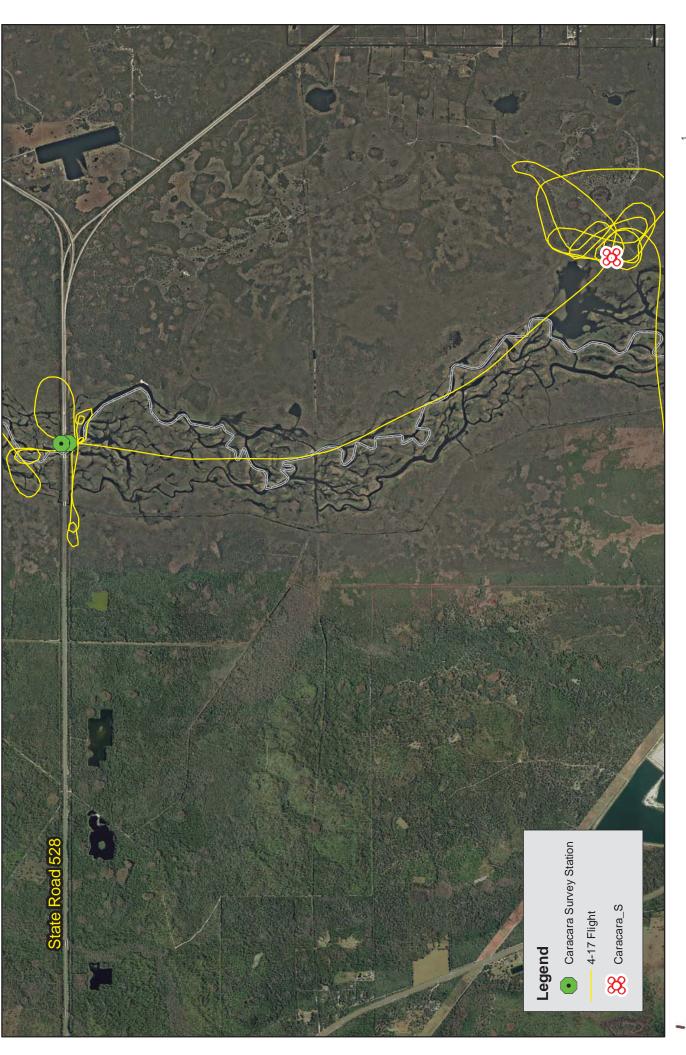
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Orange & Brevard Counties, Florida Caracara Survey Map All Aboard Florida Figure 4c

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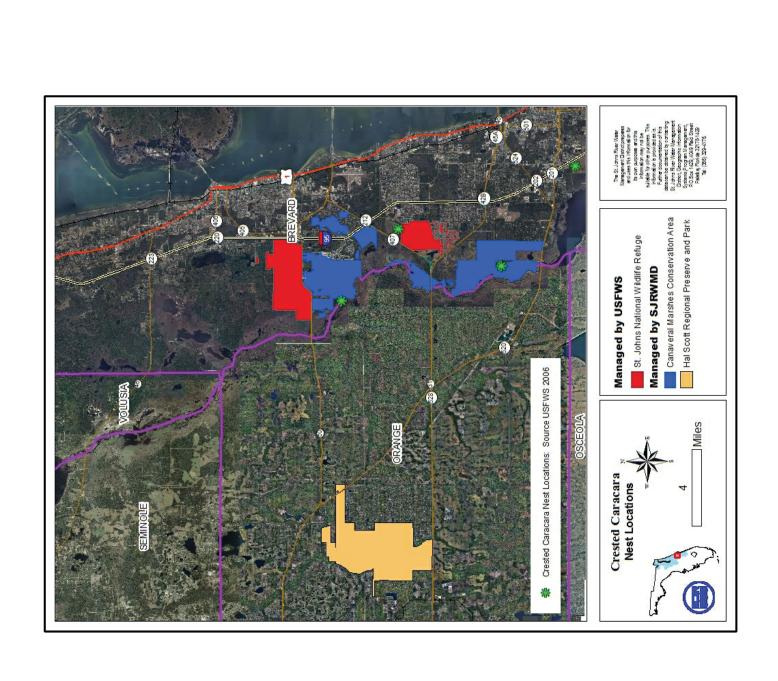
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Bio-Tech Consulting Inc.Environmental and Permitting Services



Project #: 676-03

Produced by: SAW Date: 15 May 2013





June 4, 2013

Jose Gonzalez. Vice President **Flagler Development**2855 Le Jeune Rd.
4th Floor
Coral Gables, Florida 33134

Proj: All Aboard Florida – Brevard County, Florida

FEC Right-of-Way (BTC File #676-03) Scrub-Jay Survey

Dear Mr. Gonzalez,

Re:

In March of 2013, Bio-Tech Consulting Inc. (BTC) conducted a five day Scrub-jay Survey of the Florida East Coast Railway ROW from SR 528 to the south Brevard County Line. The environmental assessment included the following elements:

- evaluation of land use types/vegetative communities present; and,
- surveys for use of the site by federally and state threatened Florida Scrub-jay.

INTRODUCTION AND BACKGROUND

The Florida Scrub-jay is a species currently listed by the U.S. Fish and Wildlife Service (Service) [50 CFR 17.11] and Florida Fish and Wildlife Conservation Commission (FWC) [Chapter 39-27.002 F.A.C.] as Threatened. As part of the All Aboard Florida Passenger Rail Project, a Scrub-jay survey was conducted along the Florida East Coast (FEC) Railway between S.R. 528 and the south Brevard County line in all suitable and marginal scrub habitat.

All Aboard Florida is a privately funded project to provide passenger rail

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Key West Office 1107 Key Plaza Suite 259 Key West FL 33040

Aquatic & Land Management Operations 3825 Rouse Rd Orlando FL 32817

Native Plant Nursery DCC Farms 8580 Bunkhouse Rd Orlando FL 32832

407.894.5969 877.894.5969 407.894.5970 fax service between Orlando and Miami. While new tracks will be constructed between Orlando and Cocoa adjacent to S.R. 528, the existing Florida East Coast Railway tracks will be utilized and upgraded between Cocoa and Miami. Upgrades will include adding a second set of tracks within the existing Right-Of-Way (ROW) and upgrading the existing tracks to accommodate higher speed trains. As the tracks currently pass through suitable habitat for the state and federally threatened Florida Scrub-jay (*Aphelocoma coerulescens*), the U.S. Fish and Wildlife Service asked that surveys for this species be conducted in areas of suitable habitat. It should be noted that the entire ROW has been impacted in the past and does not contain suitable habitat for Scrub-jays. No Scrub-jay habitat will be impacted by these plans.

ENVIRONMENTAL SETTING

The current Florida East Coast Railway tracks pass through a variety of habitats and land uses including large urban and suburban areas, wetlands, and uplands. Not all of the habitats are suitable for Scrub-jays. Brevard County has a large number of Preserves and Sanctuaries for Scrub-jays and other wildlife. Extra attention was given to where these areas abut the tracks. A number of areas where Scrub-jays have been recorded in the past are now developed or are so altered that habitat for this species no longer exists. The entire ROW was evaluated from current aerial photographs and ground inspection prior to the Scrub-jay survey to insure that all suitable areas were covered.

FLORIDA SCRUB-JAY (*Aphelocoma coerulescens*) - Federally Listed Threatened June 3, 1987, FR20719; State Listed Threatened

Florida Scrub-jays build their nests in dense shrubs, usually at low to mid-level heights. Usually the nest is located at the edge of a dense shrubby area, adjacent to bare ground or somewhat open areas. The nest is a bulky basket of twigs, usually taken from oak shrubs. The lining of the nest is a tightly woven cup of cabbage palm or saw palm fibers. The Scrub-jays never reuse the nest or the materials. Scrub-jays will not nest in the same exact location even if the nest is removed after use. The nesting season extends from March through June. The Florida Scrub-jay is strongly associated with several Florida scrub communities, and also will use adjacent non-scrub habitats of certain types. Please note, Scrub-jays exist only in areas where one or more species of scrub oaks occur, even if only vestigially represented. Before the intrusion of humans, nearly all natural scrub communities were maintained by frequent natural fires. Florida Scrub-jays are most abundant in open, oak dominated scrub communities of the interior and Atlantic coast sand



ridges of the Peninsula. Scrub-jay habitat is broken down into three types:

- TYPE I HABITAT. Any upland plant community in which percent cover of the substrate by scrub oak species is 15% or more.
- TYPE II HABITAT. Any plant community, not meeting the definition of Type I habitat, in which one or more scrub oak species is represented.
- TYPE III HABITAT. Any upland or seasonally dry wetland within ¼ mile of any designated as Type I or Type II habitat.

In most cases, the Type I habitat is recognized as xeric oak scrub, scrubby pine flatwoods, scrubby coastal strand, or sand pine scrub. Usual classification schemes are not as useful in identifying or predicting habitat type; the presence of scrub oaks is the key indicator. The third habitat type includes many different plant communities where scrub oak species are not represented, but that are nearby or adjacent to Type I or Type II habitat. The subject site does not have any scrub habitat. The citrus groves might be considered Type III habitat and surveys for Scrub-jays were conducted in these areas.

Florida Scrub-jay Survey Methodology

Utilizing methodologies outlined in the Ecology and development-related habitat requirements of the Florida scrub-jay (*Aphelocoma coerulescens*) (J.W. Fitzpatrick, G.E. Woolfenden and M.T. Kopeny, 1991) and United States Fish & Wildlife's Scrub-jay Survey Guidelines (Updated 08/24/2007), BTC staff conducted a formal Scrub-jay Survey during March 25-29, 2013. Seventy Seven (77) survey stations were established along the Railroad Right-Of-Way in areas of suitable (Type I) and marginal (Types II and III) scrub habitat (Figures 1a to 1e). Distances between the stations varied but none were farther than 160 meters apart. Survey starting and finishing locations were varied each day to avoid calling in the same station at the same time each day. In many places, particularly in the area between Valkaria Road and Barefoot Boulevard, a thick wall of vegetation, primarily Brazilian Pepper, separated the ROW from the nearby scrub. In those areas, calling stations were located in gaps in the vegetation. In addition, Old Dixie Highway also separated the ROW from adjacent scrub habitat in many areas south of Valkaria Road. All Scrub-jays reacted aggressively to the recorded Scrub-jay calls and vocalizations.



SURVEY RESULTS

The survey showed three areas where Scrub-jays occur adjacent to the FEC railway tracks (Figures 2-4). Results of each days surveys are shown in Exhibit 1:

The Area South of Gus Hipp Boulevard in Rockledge:

This is a small, approximately 1,300 foot area (Figure 2), where part of the Helen and Allen Cruickshank Sanctuary abuts the western side of the tracks. Three stations were established along this area and scrub-jays were called to the southern two. At both of these locations Scrub-jays crossed the tracks searching for the source of the calls. Habitat on the east is limited and consists primarily of Brazilian pepper and large oaks. The Scrub-jays did not stay long on the east side of the tracks and the birds were only investigating the call.

The Area Between Malabar Road and Valkaria Road:

This is an area of good scrub to the north and south of Harris Corporation (Figure 3). The northern area is part of the Jordan Scrub Preserve. Fourteen stations were located along this approximately 6,500 feet of ROW. Scrub-jays responded at 10 of these stations from the west and flew across the tracks on five occasions. While scrub habitat occurs east of the tracks, it occurs in a narrow strip between the tracks and US 1, and is much more overgrown than the area west of the tracks. Again, the birds were searching for the source of the calls and did not stay long east of the tracks.

The Area South of Micco Road:

This is an approximately 5,000 foot area of scrub and scrubby flatwoods (Figure 4). Scrub-jays responded at five of the 10 stations along this stretch. Habitat to the east of the tracks is overgrown or developed. At the southernmost station, Scrub-jays crossed the tracks on one occasion but were just searching for the source of the call.

Summary

A five day survey was conducted on the Florida East Coast railway Right-of-Way between SR 528 and the south Brevard County Line between March 25-29, 2013 for the presence of the



Florida Scrub-jay. Three areas of Scrub-jays were located; between Gus Hipp Blvd. and Barnes Road in Rockledge, between Malabar Road and Valkaria Road, and south of Micco Road.

The environmental limitations described in this document are based on observations and technical information available on the date of the on-site evaluation. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through field delineation and/or on-site review by the pertinent regulatory agencies. The wildlife surveys conducted within the subject property boundaries do not preclude the potential for any listed species, currently or in the future. Should you have any questions or require any additional information, please do not hesitate to contact our office at (407) 894-5969. Thank you.

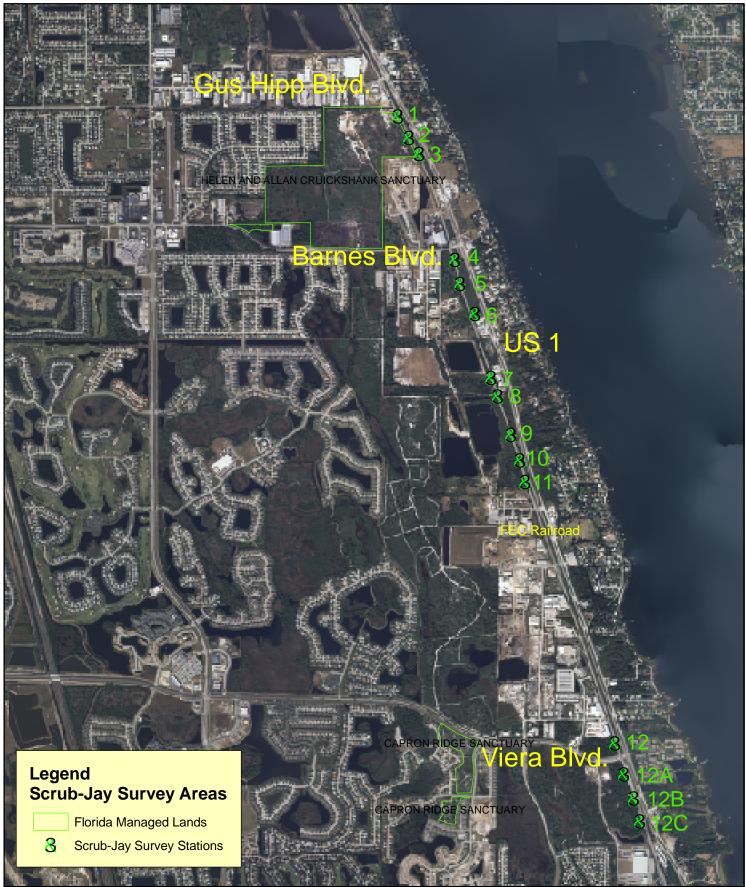
Regards,

Steve Lau Field Biologist

John Miklos President

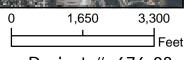
attachments







All Aboard Florida
Brevard County, Florida
Figure 1a
Scrub-Jay Survey Areas
Gus Hipp Blvd. to Viera Blvd.





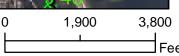


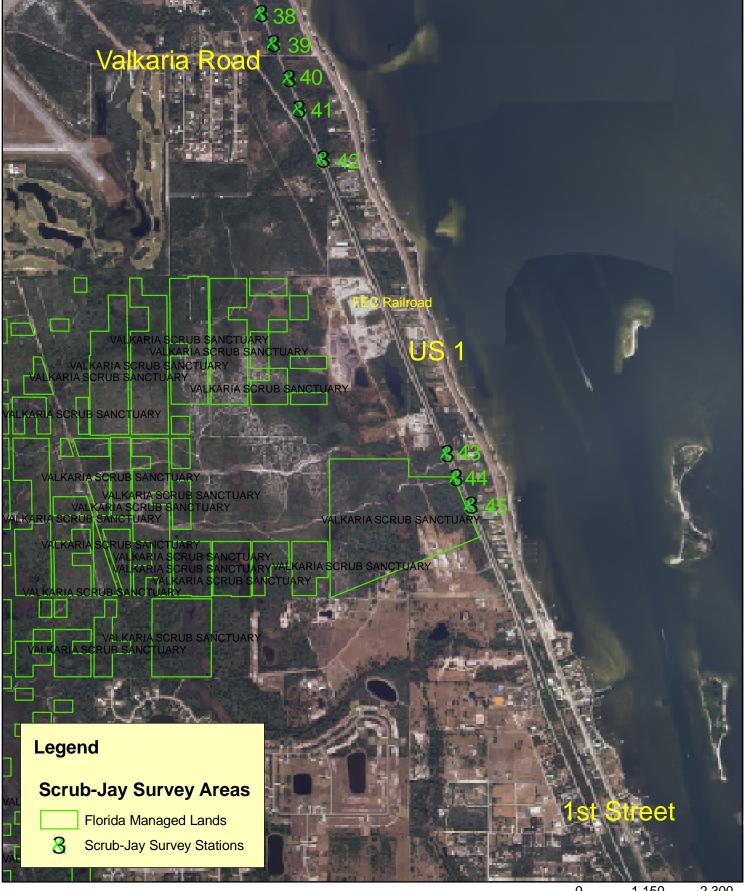
All Aboard Florida

Brevard County, Florida

Figure 1b

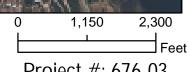
201 Scrub-Jay Survey Areas
Port Malabar Blvd. to Valkaria Road

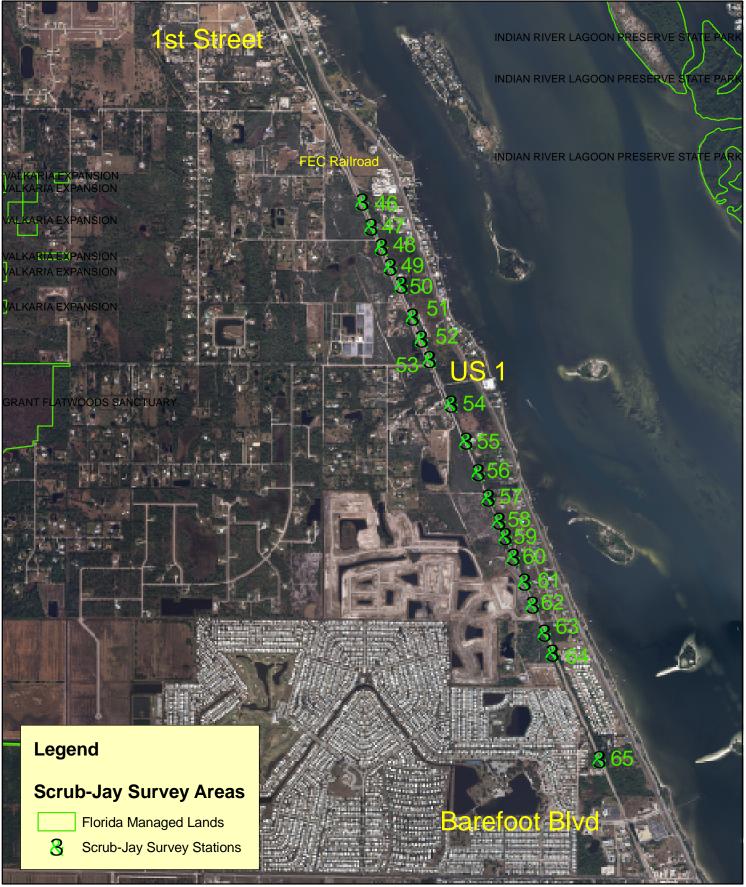






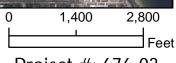
All Aboard Florida
Brevard County, Florida
Figure 1c
Scrub-Jay Survey Areas
Valkaria Road to 1st Street

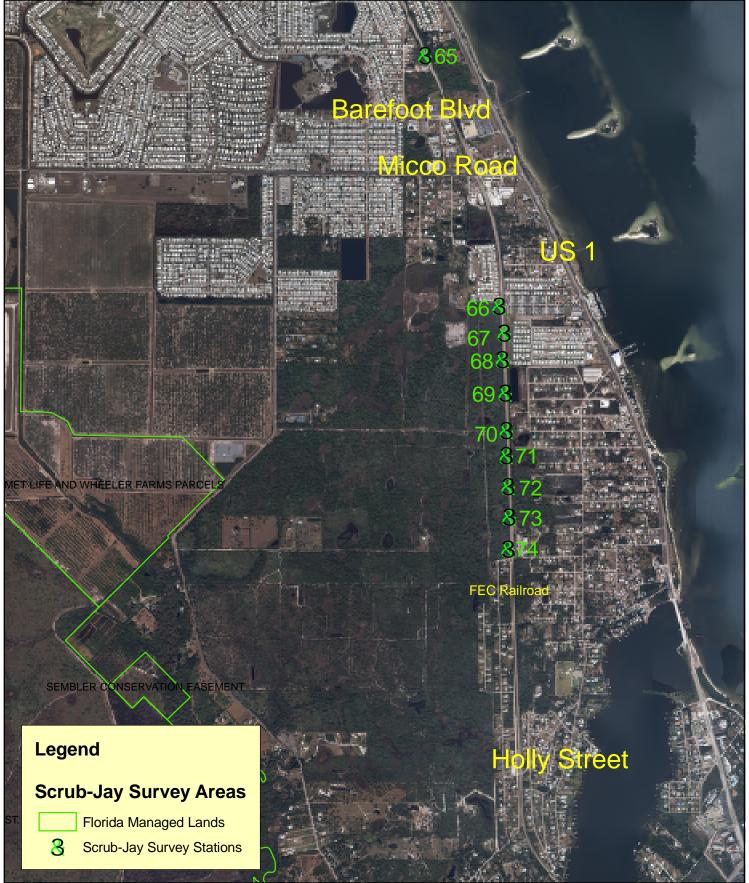






All Aboard Florida
Brevard County, Florida
Figure 1d
Scrub-Jay Survey Areas
1st Street to Barefoot Blvd.







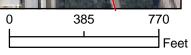
All Aboard Florida
Brevard County, Florida
Figure 1e
Scrub-Jay Survey Areas
Barefoot Blvd. to Holly Street

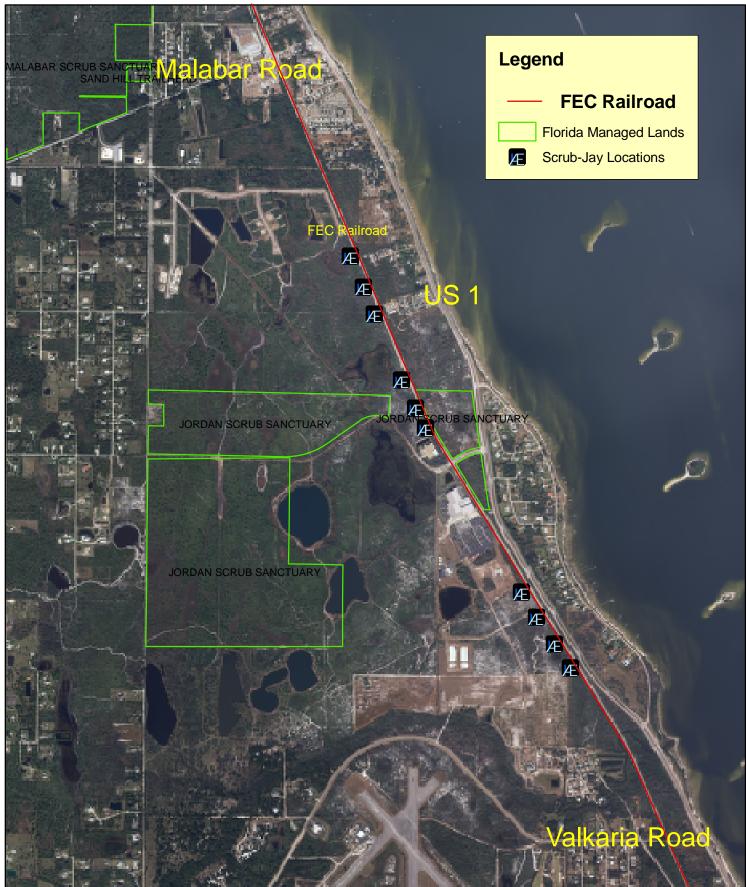






All Aboard Florida
Brevard County, Florida
Figure 2
Scrub-Jay Locations
Rockledge Area

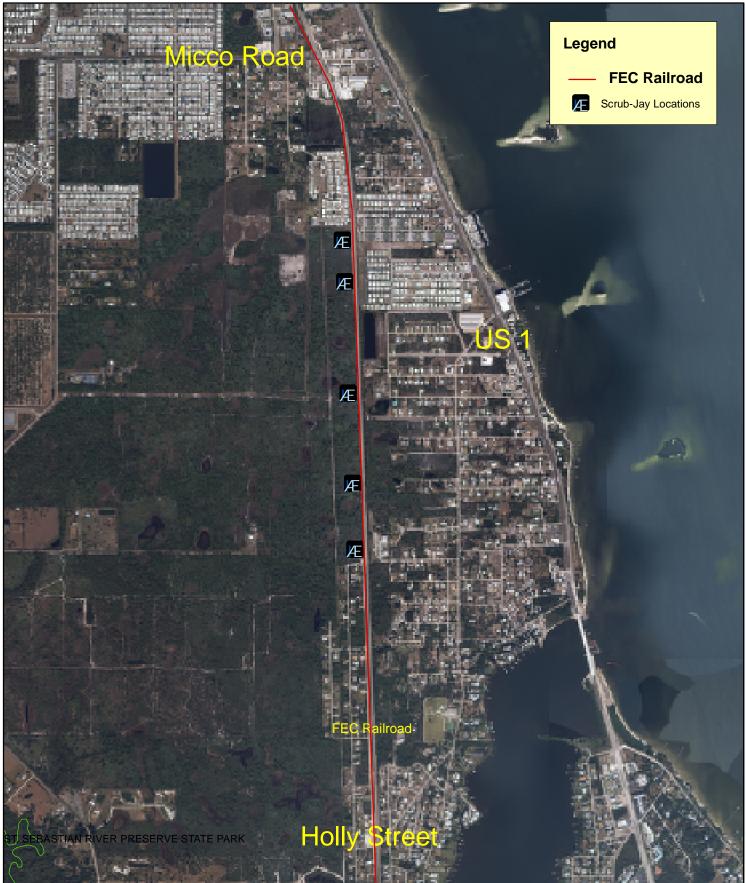






All Aboard Florida
Brevard County, Florida
Figure 3
Scrub-Jay Locations
Malabar/Valkaria

0 1,300 2,600 Feet





All Aboard Florida
Brevard County, Florida
Figure 4
Scrub-Jay Locations
South of Micco Road

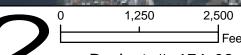


EXHIBIT 1 BREVARD COUNTY SCRUB-JAY SURVEY TABLES

| SCRUB-JAY RESPONSE | | | | | | | | | | |
|-----------------------------|-------------------|----------------|-------------------|----------------|-----------------|---------|--|--|--|--|
| Project: AAF Brevard County | | | | | | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | | | | |
| Start | 64° | 75% | NW 5 | 8:00am | | 3/25/13 | | | | |
| End | 73° | 5% | NW 10 | | 3:25pm | | | | | |
| Station | Direction From | How Many | Direction Left | Observations | | | | | | |
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| 23 | | | | | | | | | | |
| 24 | NW | 2 | | 1 flew briefly | y across tracks | | | | | |



| SCRUB-JAY RESPONSE | | | | | | | | | | |
|--------------------|-------------------|----------------|-------------------|---------------------------|----------|---------|--|--|--|--|
| Project: | | | | | | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | | | | |
| Start | 64° | 75% | NW 5 | 8:00am | | 3/25/13 | | | | |
| End | 73° | 5% | NW 10 | | 3:25pm | | | | | |
| Station | Direction From | How Many | Direction Left | Observations | | | | | | |
| 25 | north | 2 | | same birds a # 24 | | | | | | |
| 26 | west | 1 | west | different bird | | | | | | |
| 27 | | | | | | | | | | |
| 28 | | | | | | | | | | |
| 29 | WSW | 4 | west | | | | | | | |
| 30 | north | 1 | | 1 bird from # 29 followed | | | | | | |
| 31 | | | | | | | | | | |
| 32 | | | | | | | | | | |
| 33 | | | | | | | | | | |
| 34 | west | 1 | stayed | | | | | | | |
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SCRUB-JAY RESPONSE Project: Weather Temp Cloud Wind Time Start Time End Date Cover 64° NW 5 3/25/13 75% 8:00am Start End 73° 5% NW 10 3:25pm Direction How Observations Station Direction From Many Left 53 54 55 56 57 58 59 60 61 62 63 64 NW 65 66 67 1 west 68 69 70 stayed 71 72 1 west 73 74



SCRUB-JAY RESPONSE **Project: AAF Brevard County** Weather Temp Cloud Wind Time Start Time End Date Cover 52° NW 5 3/26/13 80% 7:50am Start End 61° 10% NW 10 3:15pm Observations Station Direction How Direction From Many Left 1 2 3 4 5 6 7 8 9 10 11 12 12a 12b 12c 13 14 15 16 17 18 19 20 21 22 23 24



SCRUB-JAY RESPONSE Project: Weather Temp Cloud Wind Time Start Time End Date Cover 52° NW 5 80% 7:50am 3/26/13 Start End 61° 10% NW 10 3:15pm Observations Station Direction How Direction From Left Many 25 26 27 28 1 bird flew briefly across tracks 29 2 south west 30 1 west 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52



SCRUB-JAY RESPONSE Project: Weather Temp Cloud Wind Time Start Time End Date Cover 52° NW 5 3/26/13 80% 7:50am Start End 61° 10% NW 10 3:15pm Direction Observations Station How Direction From Many Left 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 took a while to respond west 2 west 68 69 70 71 72 73



SCRUB-JAY RESPONSE Project: AAF Brevard County Weather Temp Cloud Wind Time Start Time End Date Cover 39° NW 5 3/27/13 0% 7:55am Start End 61° NE 10 3:15pm 0% Observations Station Direction How Direction From Many Left 1 1 SJ crossed tracks 3 times looking for call 2 west 3 stayed 3 4 5 6 7 8 9 10 11 12 12a 12b 12c 13 14 15 16 17 18 19 20 21 22 23 24



SCRUB-JAY RESPONSE Project: Weather Temp Cloud Wind Time Start Time End Date Cover 39° NW 5 0% 7:55am 3/27/13 Start End 61° NE 10 3:15pm 0% Observations Station Direction How Direction From Many Left 25 26 27 28 29 30 31 32 33 34 NW wouldn't come close to call 1 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52



SCRUB-JAY RESPONSE Project: Weather Temp Cloud Wind Time Start Time End Date Cover 39° NW 5 0% 7:55am 3/27/13 Start End 61° NE 10 3:15pm 0% Observations Station Direction How Direction Left From Many 53 54 55 56 57 58 59 60 61 62 63 64 65 66 south 2 north 67 2 same 2 birds as Station # 66 north 68 69 70 heard response from scrub but wouldn't show 71 72 73 1 bird crossed tracks twice searching for call 74 south 2 south



SCRUB-JAY RESPONSE Project: AAF Brevard County Weather Temp Cloud Wind Time Start Time End Date Cover 41° 0% calm 7:45am 3/28/13 Start End 66° N 10mph 3:25pm 0% Direction Observations Station Direction How From Many Left 1 1 bird flew briefly across tracks 2 2 west west 3 4 5 6 7 8 9 10 11 12 12a 12b 12c 13 14 15 16 17 18 19 20 21 22 23 24



SCRUB-JAY RESPONSE Project: AAF Brevard County Weather Temp Cloud Wind Time Start Time End Date Cover 41° 0% 7:45am 3/28/13 Start calm End 66° N 10mph 3:25pm 0% Direction Observations Station Direction How From Left Many 25 26 west 2 took several minutes to respond west 27 28 29 30 31 32 33 south 2 34 north 1 north 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52



SCRUB-JAY RESPONSE Project: AAF Brevard County Weather Temp Cloud Wind Time Start Time End Date Cover 41° 0% 7:45am 3/28/13 calm Start End 66° 0% N 10mph 3:25pm Station Direction How Direction Observations Left From Many 53 56 57 58 59 60 61 62 63 64 65 66 south 2 south 67 2 same 2 as Station 66 north south one bird from #67 followed ½ way to #68 68 1 north 69 70 2 west west 71 72 73 74 1 west west



SCRUB-JAY RESPONSE Project: AAF Brevard County Weather Temp Cloud Wind Time Start Time End Date Cover 47° 0% 8:00 am 3/29/13 Start calm 70° N 8mph 3:30 pm End 0% Station Direction How Direction Observations From Many Left 1 2 3 same birds as station #3 south west NW 3 3 4 5 6 7 8 9 10 11 12 12a 12b 12c 13 14 15 16 17 18 19 20 21 22 23



| SCRUB- | JAY RESP | ONSE | | | | | |
|----------|-------------------|----------------|-------------------|---------------|------------------|-------------------|--|
| Project: | | | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | |
| Start | 47° | 0% | calm | 8:00 am | 3:30 pm | 3/29/13 | |
| End | 70° | 0% | N 8mph | | | | |
| Station | Direction From | How Many | Direction Left | Observations | | | |
| 24 | west | 3 | west | flew briefly | across tracks, s | earching for call | |
| 25 | | | | | | | |
| 26 | | | | | | | |
| 27 | | | | | | | |
| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | | | | | | | |
| 31 | | | | | | | |
| 32 | | | | | | | |
| 33 | | | | | | | |
| 34 | | | | | | | |
| 35 | south | 2 | SW | same 2 as St | ation #36, flew | across tracks | |
| 36 | NW | 2 | | flew across t | racks twice, se | arching for call | |
| 37 | | | | | | | |
| 38 | | | | | | | |
| 39 | | | | | | | |
| 40 | | | | | | | |
| 41 | | | | | | | |
| 42 | | | | | | | |
| 43 | | | | | | | |
| 44 | | | | | | | |
| 45 | | | | | | | |
| 46 | | | | | | | |
| 47 | | | | | | | |
| 48 | | | | | | | |
| 49 | | | | | | | |
| 50 | | | | | | | |
| 51 | | | | | | | |



| SCRUB- | JAY RESPO | ONSE | | | | | |
|-----------------|-------------------|----------------|-------------------|---------------|------------------|-----------|--|
| Project: | | | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | |
| Start | 47° | 0% | calm | 8:00 am | 3:30 pm | 3/29/13 | |
| End | 70° | 0% | N 8mph | | | | |
| Station | Direction From | How Many | Direction Left | | Observations | | |
| 53 | | | | | | | |
| 54 | | | | | | | |
| 55 | | | | | | | |
| 56 | | | | | | | |
| 57 | | | | | | | |
| 58 | | | | | | | |
| 59 | | | | | | | |
| 60 | | | | | | | |
| 61 | | | | | | | |
| 62 | | | | | | | |
| 63 | | | | | | | |
| 64 | | | | | | | |
| 65 | | | | | | | |
| 66 | south | 2 | | same birds as | s Station # 67 | | |
| 67 | south | 2 | | | | | |
| 68 | | | | | | | |
| 69 | | | | | | | |
| 70 | | | | | | | |
| 71 | | | | | | | |
| 72 | | | | | | | |
| 73 | | | | | | | |
| 74 | south | 1 | west | wouldn't get | to close to call | l station | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |





June 4, 2013

Jose Gonzalez. Vice President **Flagler Development**2855 Le Jeune Rd.
4th Floor
Coral Gables, Florida 33134

Proj: All Aboard Florida – Brevard County, Florida

FEC Right-of-Way (BTC File #676-03) Scrub-Jay Survey

Dear Mr. Gonzalez,

Re:

In March of 2013, Bio-Tech Consulting Inc. (BTC) conducted a five day Scrub-jay Survey of the Florida East Coast Railway ROW from the north Indian River County Line to the south Martin County Line. The environmental assessment included the following elements:

- evaluation of land use types/vegetative communities present; and,
- surveys for use of the site by federally and state threatened Florida Scrub-jay.

INTRODUCTION AND BACKGROUND

The Florida Scrub-jay is a species currently listed by the U.S. Fish and Wildlife Service (Service) [50 CFR 17.11] and Florida Fish and Wildlife Conservation Commission (FWC) [Chapter 39-27.002 F.A.C.] as Threatened. As part of the All Aboard Florida Passenger Rail Project, a Scrub-jay survey was conducted along the Florida East Coast (FEC) Railway between the north Indian River County line and the south Martin County line in all suitable and marginal scrub habitat.

All Aboard Florida is a privately funded project to provide passenger rail

Orlando Office 2002 E Robinson St Orlando FL 32803

Vero Beach Office 1717 Indian River Blvd Suite 201 Vero Beach FL 32960

Leesburg Office 414 W Main St Suite 204 Leesburg FL 34748

Jacksonville Office 2036 Forbes St Jacksonville FL 32204

Tampa Office 333 Falkenburg Rd N Suite A 128 Tampa FL 33619

Key West Office 1107 Key Plaza Suite 259 Key West FL 33040

Aquatic & Land Management Operations 3825 Rouse Rd Orlando FL 32817

Native Plant Nursery DCC Farms 8580 Bunkhouse Rd Orlando FL 32832 service between Orlando and Miami. While new tracks will be constructed between Orlando and Cocoa adjacent to S.R. 528, the existing Florida East Coast Railway tracks will be utilized and upgraded between Cocoa and Miami. Upgrades will include adding a second set of tracks within the existing Right-Of-Way (ROW) and upgrading the existing tracks to accommodate higher speed trains. As the tracks currently pass through suitable habitat for the state and federally threatened Florida Scrub-jay (*Aphelocoma coerulescens*), the U.S. Fish and Wildlife Service asked that surveys for this species be conducted in areas of suitable habitat. It should be noted that the entire ROW has been impacted in the past and does not contain suitable habitat for Scrub-jays. No Scrub-jay habitat will be impacted by these plans.

ENVIRONMENTAL SETTING

The current Florida East Coast Railway tracks pass through a variety of habitats and land uses including large urban and suburban areas, wetlands, and uplands. Not all of the habitats are suitable for Scrub-jays. These three counties have a large number of Preserves and Sanctuaries for Scrub-jays and other wildlife. Extra attention was given to where these areas abut the tracks. A number of areas where Scrub-jays have been recorded in the past are now developed or are so altered that habitat for this species no longer exists. The entire ROW was evaluated from current aerial photographs and ground inspection prior to the Scrub-jay survey to insure that all suitable areas were covered. These areas were presented to, and approved, by the U.S. Fish and Wildlife Service before the surveys were conducted.

FLORIDA SCRUB-JAY (*Aphelocoma coerulescens*) - Federally Listed Threatened June 3, 1987, FR20719; State Listed Threatened

Florida Scrub-jays build their nests in dense shrubs, usually at low to mid-level heights. Usually the nest is located at the edge of a dense shrubby area, adjacent to bare ground or somewhat open areas. The nest is a bulky basket of twigs, usually taken from oak shrubs. The lining of the nest is a tightly woven cup of cabbage palm or saw palm fibers. The Scrub-jays never reuse the nest or the materials. Scrub-jays will not nest in the same exact location even if the nest is removed after use. The nesting season extends from March through June. The Florida Scrub-jay is strongly associated with several Florida scrub communities, and also will use adjacent non-scrub habitats of certain types. Please note, Scrub-jays exist only in areas where one or more species of scrub oaks occur, even if only vestigially represented. Before the intrusion of humans, nearly all natural scrub communities were maintained by frequent natural fires. Florida Scrub-jays are most abundant in open, oak dominated scrub communities of the interior and Atlantic coast sand



ridges of the Peninsula. Scrub-jay habitat is broken down into three types:

- TYPE I HABITAT. Any upland plant community in which percent cover of the substrate by scrub oak species is 15% or more.
- TYPE II HABITAT. Any plant community, not meeting the definition of Type I habitat, in which one or more scrub oak species is represented.
- TYPE III HABITAT. Any upland or seasonally dry wetland within ¼ mile of any designated as Type I or Type II habitat.

In most cases, the Type I habitat is recognized as xeric oak scrub, scrubby pine flatwoods, scrubby coastal strand, or sand pine scrub. Usual classification schemes are not as useful in identifying or predicting habitat type; the presence of scrub oaks is the key indicator. The third habitat type includes many different plant communities where scrub oak species are not represented, but that are nearby or adjacent to Type I or Type II habitat. The subject site does not have any scrub habitat. The citrus groves might be considered Type III habitat and surveys for Scrub-jays were conducted in these areas.

Florida Scrub-jay Survey Methodology

Utilizing methodologies outlined in the Ecology and development-related habitat requirements of the Florida scrub-jay (*Aphelocoma coerulescens*) (J.W. Fitzpatrick, G.E. Woolfenden and M.T. Kopeny, 1991) and United States Fish & Wildlife's Scrub-jay Survey Guidelines (Updated 08/24/2007), BTC staff conducted a formal Scrub-jay Survey during March 4-8, 2013 for Indian River and northern St. Lucie County; March 11-15, 2013 for southern St. Lucie County and northern Martin County; and March 18-22 for central and southern Martin County. Survey stations were established along the Railroad Right-Of-Way in areas of suitable (Type I) and marginal (Types II and III) scrub habitat. Twenty six Survey Stations were established in Indian River County (Figures 1 to 1c), 108 Survey Stations were established in St. Lucie County (Figures 2 to 2d), and 70 Survey Stations were established in Martin County (Figures 3 to 3c). Distances between the stations varied with habitat but none were farther than 160 meters apart. Survey starting and finishing locations were varied each day to avoid calling in the same station at the same time each day.



SURVEY RESULTS

Indian River County

Survey data for Indian River County is shown in Exhibit 1. Scrub-jays were only observed in the north end of the county on the eastern edge of the North Sebastian Conservation Area (Figure 4). There appears to be two families of Scrub-jays utilize this area, separated by a marsh. A Wal-Mart is located east with areas of disturbed scrub to the north and south. On one occasion a Scrub-jay crossed the tracks to the edge of the northern disturbed scrub but was searching for the source of the calls and did not stay long east of the tracks.

No other Scrub-jays were observed in Indian River County. Some marginal habitat was found between 65th and 69th Streets. A thick area of Brazilian pepper, cabbage palm, and oak occurs along the edge of the ROW. Extensive calling was conducted in small breaks along this area but no Scrub-jay response was observed. Habitat around the Vero Beach Airport is highly disturbed and no Scrub-jay response was observed.

St. Lucie County

Survey Data for St. Lucie County is shown in Exhibit 2. This county was divided into two areas, the north county around the FAU/Harbor Branch Institute and the south county, primarily Savannas Preserve State Park. Scrub habitat in the northern area is very disturbed and no Scrubjay response was observed. Scrub Jays were observed within the Savannas Preserve State Park, and a Florida Inland Navigation District (FIND) site at the northeast corner of County Line Road at the south county line (Figures 5 to 7). In addition, park staff identified areas where they have observed Scrub-jays. One is a broad area of good habitat that has been recently managed for Scrub-jays (Figure 5a). While BTC only recorded Scrub-jays in one location near the center of this area, it is expected that birds use this entire area. Another area reported by park staff is in the extreme south end of the park, adjacent to the FIND site. Habitat in this area is not as good and these may be the same birds BTC recorded from the FIND site.

Martin County

Survey data for Martin County is shown in Exhibit 3. This county was divided into three areas, disturbed scrub habitat in the northern Jensen Beach area, central Martin County adjacent to Seabranch Preserve State Park, and the extreme southern end of the county consisting of a small



part of the Hobe Sound national Wildlife Refuge and bisecting Jonathan Dickinson State Park.

The remnant scrub areas in Jensen Beach have been impacted by surrounding activities. The northern area is predominately large sand pine and is covered with ATV trails. The southern area has a large stand of slash pine along the tracks. No Scrub-jays responded to calls in this area.

The Seabranch Preserve State Park is located east of the tracks and Dixie Highway. In the northern end of the park, the highway is between the tracks and the park but the highway crosses the tracks and in the southern end tracks are between the park and the highway. No Scrub-jay habitat occurs west or the park. Information from the park staff indicated the no Scrub-jays have been observed in the park since 2009. As expected, no Scrub-jays responded to calls in this area.

The southern end consists of the only area where Scrub-jays were observed (Figure 8). This area consists of small piece of the Hobe Sound National Wildlife Refuge north of the area where a U.S.1 bridge crosses the railroad tracks and then through Jonathan Dickinson State Park almost to the south county line. The majority of the railroad ROW, expect for a small area around where an internal road crosses the tracks, is good scrub habitat. A number of Scrub-jays were recorded within the park, especially in the southern end. The northern end is excellent scrub habitat that has been recently managed. Only one family was regularly observed in this area but it can be expected that this entire area is, or will be, inhabited by Scrub-jays. Scrub-habitat occurs on both sides of the tracks in most of the state park but only once did a bird cross the tracks and it didn't stay long on the other side. Twice birds were responding to the calls and were close to the ROW when a train passed. On both occasions the bird disappeared into the scrub and did not reappear until several minutes after the train passed. It should be noted that the trains were blowing their horns as required when personnel are in the ROW.

Summary

As part of the All Aboard Florida Passenger Rail Project, a Scrub-jay survey was conducted along the Florida East Coast (FEC) Railway between Roseland Road in Sebastian, Indian River County and the south Martin County line in all suitable and marginal scrub habitat. Scrub-jays were found in all three counties and were predominately located in natural area preserves. Although Scrub-jays did cross the railroad tracts on several occasions, it was in response to searching for the source of the calls and they never stayed long east of the tracks. On two occasions in Martin County, Scrub-jays were near the tracks responding to the calling when a



train approached. Both times the birds disappeared into the scrub until after the train had passed.

The environmental limitations described in this document are based on observations and technical information available on the date of the on-site evaluation. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through field delineation and/or on-site review by the pertinent regulatory agencies. The wildlife surveys conducted within the subject property boundaries do not preclude the potential for any listed species, currently or in the future. Should you have any questions or require any additional information, please do not hesitate to contact our office at (407) 894-5969. Thank you.

Regards,

Steve Lau Field Biologist

John Miklos President

attachments







All Aboard Florida
Indian River County, Florida
Figure 1a
Scrub-Jay Survey Areas
Roseland Road to Main Street





All Aboard Florida
Indian River County, Florida
Figure 1b
Scrub-Jay Survey Areas
69th Street to 65th Street

0 385 770 Feet

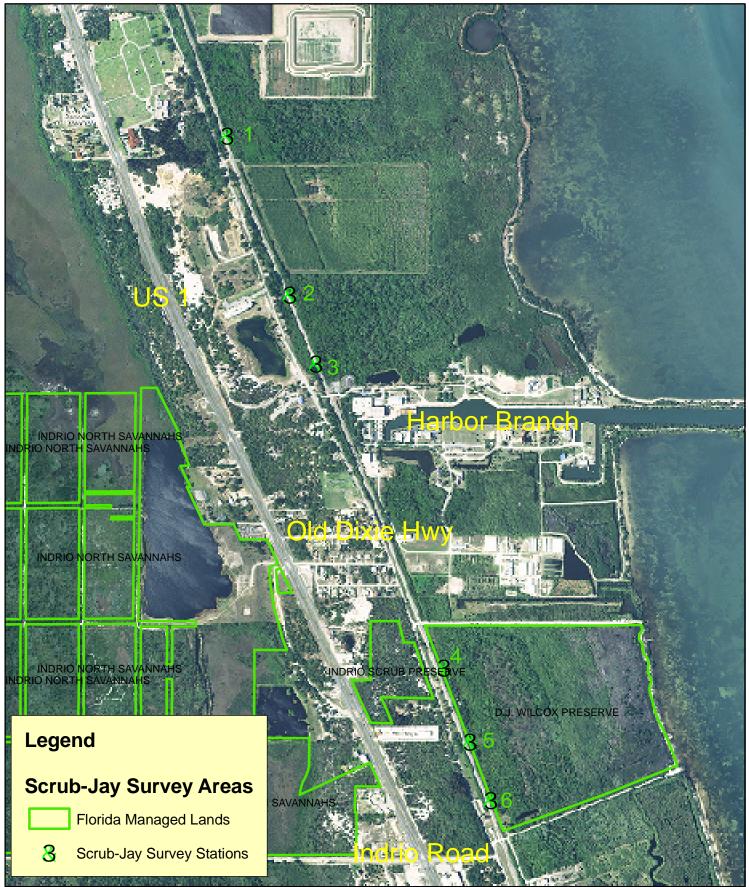




All Aboard Florida
Indian River County, Florida
Figure 1c
Scrub-Jay Survey Areas
41th Street to Aviation Blvd.

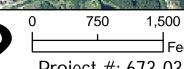
0 550 1,100 Feet Project #: 676-03

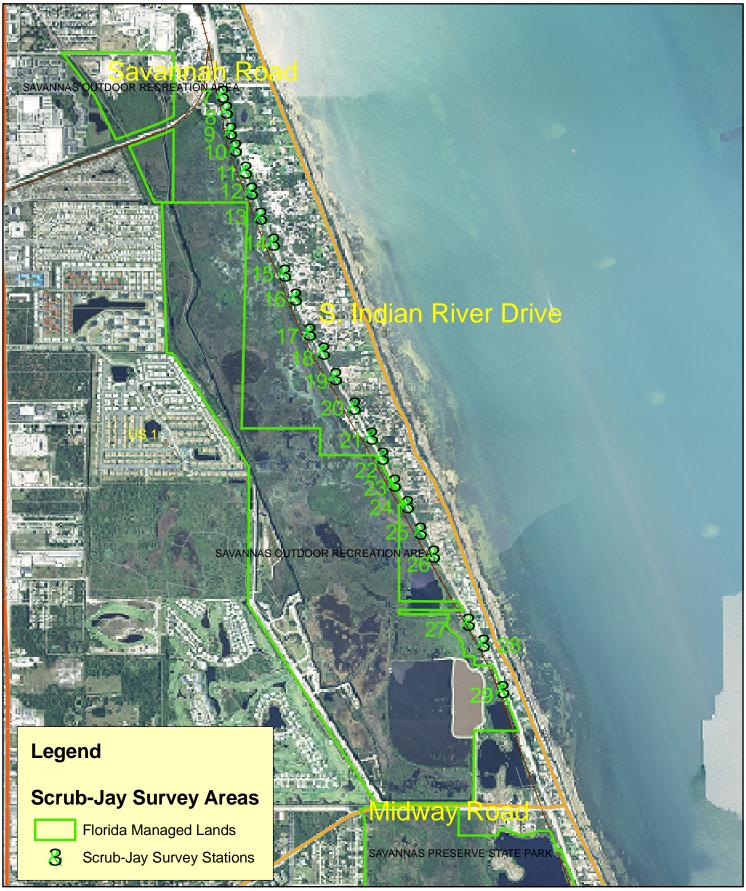
Produced By: SRL Date: 4/2/13





All Aboard Florida
St. Lucie County, Florida
Figure 2a
Scrub Jay Survey Areas
Harbor Branch Area







1717 Indian River Blvd, Suite 201 Scrub Jay Survey Areas Vero Beach, Florida 32960 Savannah Road to Midway Road

All Aboard Florida St. Lucie County, Florida Fig. 2b Scrub Jay Survey Areas



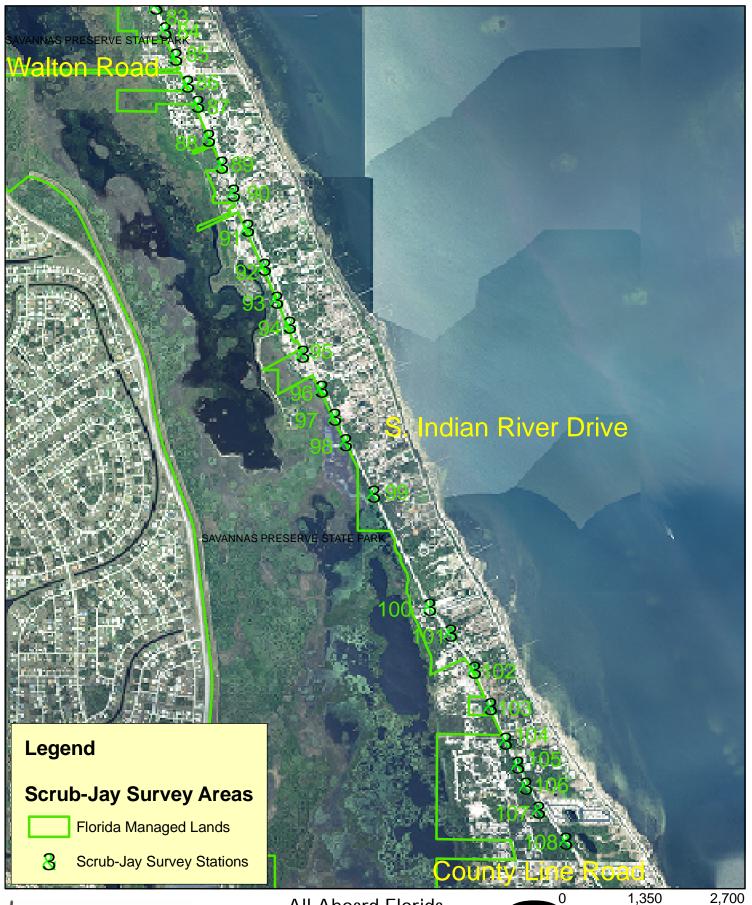




All Aboard Florida
St. Lucie County, Florida
Figure 2c
Scrub Jay Survey Areas
Midway Road to Walton road

0 2,500 5,000 Feet Project #: 673-03 Produced By: SRL

Date: 4/2/13





All Aboard Florida
St. Lucie County, Florida
Figure 2d

201 Scrub Jay Survey Areas
Walton Road to County Line Road

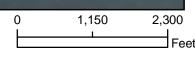
Project #: 673-03

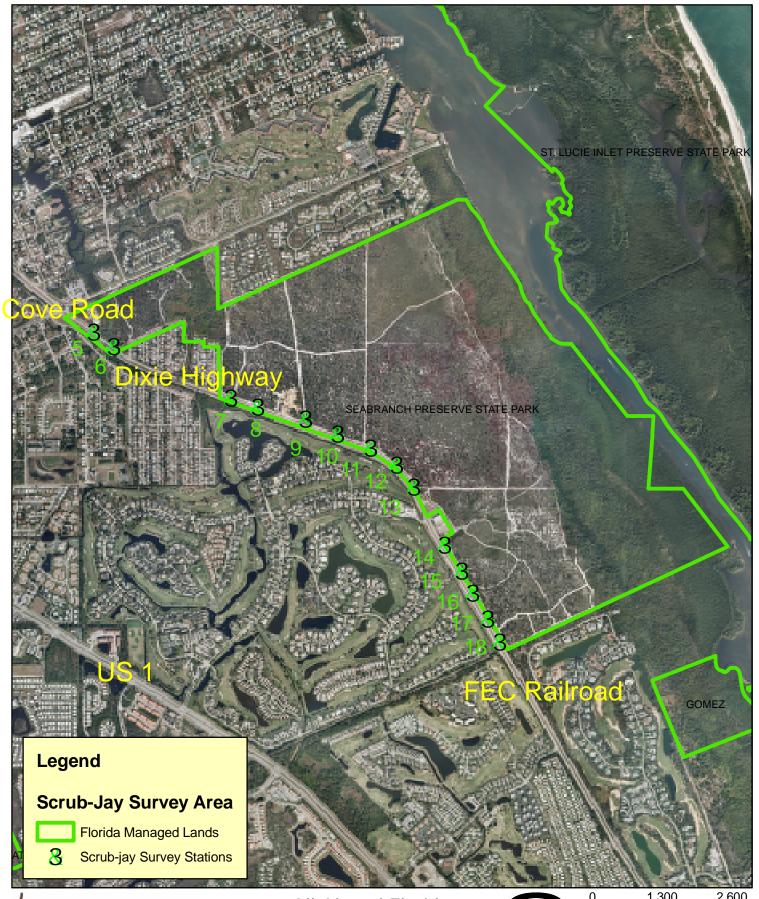
Produced By: SRL Date: 4/2/13



1717 Indian River Blvd, Suite 201 Vero Beach, Florida 32960

All Aboard Florida Martin County, Florida Fig. 3a Scrub-Jay Survey Areas Jensen Beach

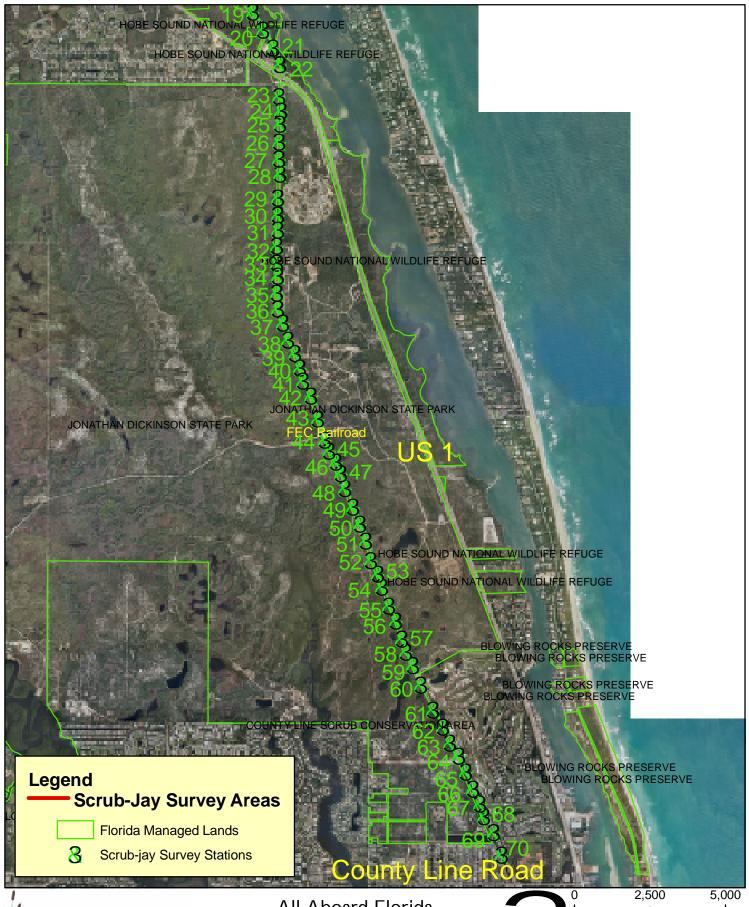




1717 Indian River Blvd, Suite 201 Vero Beach, Florida 32960

All Aboard Florida
Martin County, Florida
Fig. 3b
Scrub-Jay Survey Areas
Seabranch Preserve State Park

0 1,300 2,600 Feet



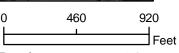
1717 Indian River Blvd, Suite 201 Vero Beach, Florida 32960

All Aboard Florida Martin County, Florida ₂₀₁ Figure 3c Scrub-Jay Survey Areas Jonathan Dickinson State Park 0 2,500 5,000 Feet Project #: 673-03





All Aboard Florida Indian River County, Florida Figure 4 Scrub-Jay Locations Sebastian

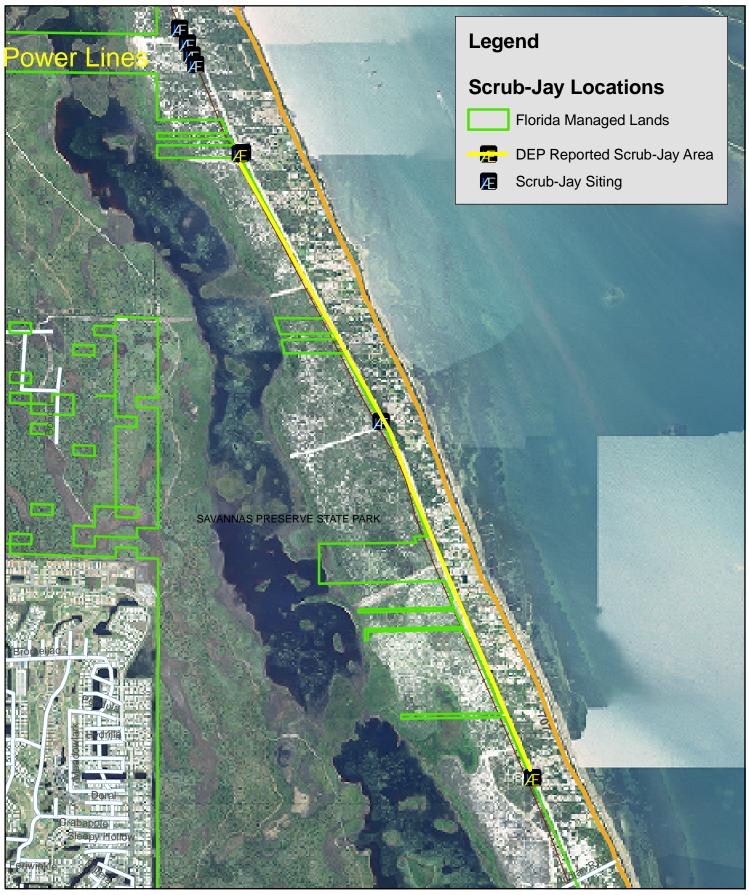






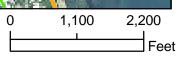
All Aboard Florida
St. Lucie County, Florida
Figure 5
Scrub Jay Locations
Power Lines South of Midway Road

0 1,200 2,400 Feet





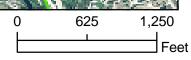
All Aboard Florida
St. Lucie County, Florida
201 Figure 5a
DEP Reported Scrub Jay Locations
South of Power Lines

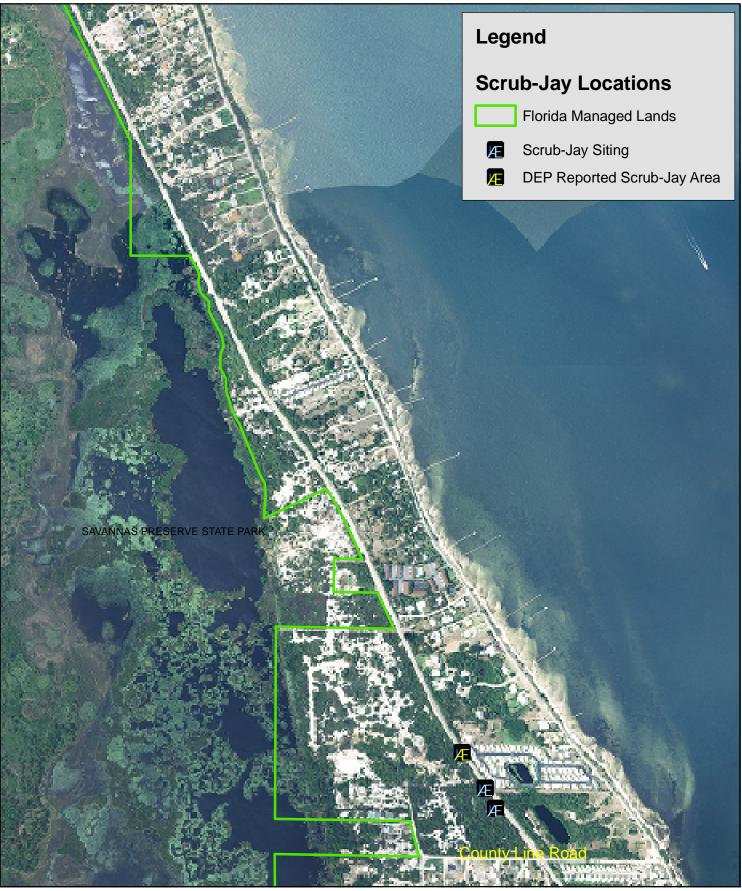






All Aboard Florida
St. Lucie County, Florida
Figure 6
Scrub Jay Locations
Savannas Near Walton Road

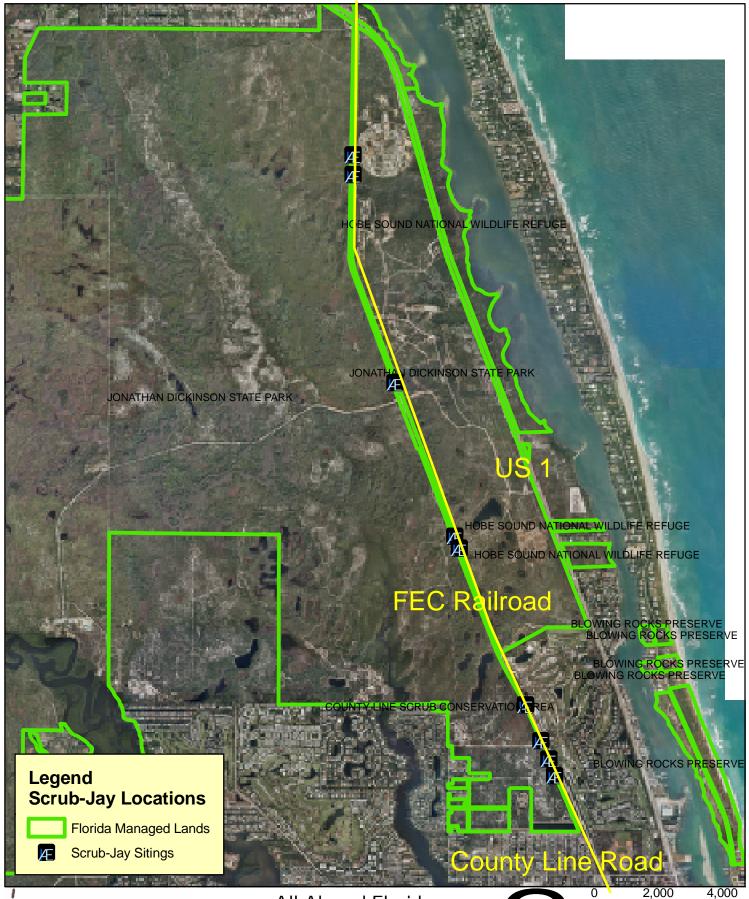






1717 Indian River Blvd, Suite 201 Scrub Jay Locations Vero Beach, Florida 32960 South Savannas by County Line Road

All Aboard Florida St. Lucie County, Florida Figure 7 Scrub Jay Locations 0 600 1,200 Feet



1717 Indian River Blvd, Suite 201 Vero Beach, Florida 32960

All Aboard Florida Martin County, Florida ₂₀₁ Figure 8 Scrub-Jay Locations Jonathan Dickinson State Park 0 2,000 4,000 Feet

EXHIBIT 1 INDIAN RIVER COUNTY SCRUB-JAY SURVEY TABLES

| SCRUB- | JAY RESP | ONSE | | | | | |
|-----------------|-------------------|----------------|-------------------|-------------------|----------------|--------------------|--|
| Project: | AAF India | n River Co | ounty | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | |
| Start | 36° | 0% | NE 7 | 8:15 am | m 3/4/13 | | |
| End | 53° | 5% | NE 10 | | 12:10 pm | | |
| Station | Direction From | How Many | Direction Left | | Observations | | |
| 1 | south | 3 | south | 1 bird brief call | ly crossed tra | acks searching for | |
| 2 | north | 3 | south | same 3 as # 1 | 1 | | |
| 3 | north | 3 | west | same 3 as # 2 | 2 | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
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| 26 | | | | | | | |



| SCRUB- | JAY RESP | ONSE | | | | | |
|-----------------|-------------------|----------------|-------------------|---------------|-----------------|--------|--|
| Project: | AAF India | n River Co | ounty | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | |
| Start | 72° | 0% | S 10 | 12:10pm | 4:00 pm | 3/5/13 | |
| End | 71° | 0% | S 5 | | | | |
| Station | Direction From | How Many | Direction Left | Observations | | | |
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | south | 1 | SW | 1 bird follow | ved from Statio | on # 6 | |
| 6 | west | 5 | | Very vocal | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|------------|--------------|--------|
| Project: | AAF India | n River Co | ounty | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 61° | 100% | SW 8 | 8:00 am | | 3/6/13 |
| End | 65° | 10% | SW 10 | | 11:25pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | west | 3 | west | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|---------------|--------------|--------|
| Project: | AAF India | n River Co | ounty | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 64° | 0% | NW 6 | 12:00 noon | | 3/7/13 |
| End | 66° | 0% | NW 10 | | 3:35 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | SW | 2 | south | | | |
| 2 | north | 2 | south | same birds as | s #1 | |
| 3 | north | 2 | | same birds as | s #1 | |
| 4 | | | | | | |
| 5 | | | | | | |
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| 7 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|----------------|------------------|---------|
| Project: | AAF India | n River Co | ounty | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 59° | 0% | NNE 8 | 12:15pm | | 3/8/13 |
| End | 60° | 0% | NE 10 | | 3:10pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | north | 1 | south | didn't come | close, 2 eagles | in area |
| 3 | | | | | | |
| 4 | north | 2 | south | didn't get clo | ose, 2 eagles in | area |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
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EXHIBIT 2 ST. LUCIE COUNTY SCRUB-JAY SURVEY TABLES

| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|------------|--------------|--------|
| Project: | AAF St. Lu | icie County | 7 | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/4/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|--------|
| | | icie County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/4/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 29 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | | | | |
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| Project: | Project: AAF St. Lucie County | | | | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | | | |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/5/13 | | | |
| End | 54° | 5% | NE 8 | | 4:20 pm | | | | |
| Station | Direction From | How Many | Direction Left | | Observations | | | | |
| 1 | | | | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|--------|
| | | icie County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/5/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 29 | | | | | | |
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| | Temp 53° 54° Direction From | Cloud Cover 5% 5% How Many | Wind NE 10 NE 8 Direction | Time Start 12:50 pm | Time End | Date 3/6/13 |
|-----------------------|-------------------------------|---|------------------------------|---------------------|--------------|-------------|
| Start End Station 1 2 | Temp 53° 54° Direction | Cloud Cover 5% 5% How | Wind NE 10 NE 8 Direction | | | |
| End Station 1 2 | 54° Direction | 5% 5% How | NE 8 Direction | 12:50 pm | 4.20 = = | 3/6/13 |
| Station 1 2 | Direction | How | Direction | | 4.20 | 5, 5, 15 |
| 1 2 | | | | | 4:20 pm | 1 |
| 2 | | | Left | | Observations | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|--------|
| | | icie County | | | | |
| Weather | | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/6/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | 1 |
| 29 | | | | | | |
| 29 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|------------|--------------|--------|
| Project: | AAF St. Lu | icie County | 7 | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/7/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|--------|
| | | icie County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/7/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 29 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|------------|--------------|--------|
| Project: | AAF St. Lu | icie County | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/8/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|--------|
| | | icie County | | | | |
| Weather | | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 53° | 5% | NE 10 | 12:50 pm | | 3/8/13 |
| End | 54° | 5% | NE 8 | | 4:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | cie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 66° | 10% | SE 2 | 8:55 am | | 3/11/13 |
| End | 73° | 10% | S 5 | | 4:10 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |
| 33 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|--------|
| Project: | AAF St. Lu | cie County | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 66° | 10% | SE 2 | 8:55 am | | 3/1113 |
| End | 73° | 10% | S 5 | | | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | | | | | | |
| 63 | | | | | | |
| 64 | | | | | | |
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| 84 | | | | | | |
| 85 | | | | | | |
| 86 | | | | | | |



| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|--------------------------|--------------|---------|
| Project: | AAF St. Lu | icie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start Time End Date | | |
| Start | 66° | 10% | SE 2 | 8:55 am | | 3/11/13 |
| End | 73° | 10% | S 5 | | | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 87 | | | | | | |
| 88 | | | | | | |
| 89 | | | | | | |
| 90 | | | | | | |
| 91 | | | | | | |
| 92 | | | | | | |
| 93 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | icie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 66° | 80% | S 2 | 8:45 am | | 3/12/13 |
| End | 79° | 75% | SE 10 | | 3:55 | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |
| 33 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|--------------|--------------|---------|
| Project: | AAF St. Lu | cie County | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 66° | 80% | S 2 | 8:45 am | | 3/12/13 |
| End | 79° | 75% | SE 10 | | 3:55 | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | | | | | | |
| 63 | | | | | | |
| 64 | | | | | | |
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| 83 | | | | | | |
| 84 | | | | | | |
| 85 | | | | | | |
| 86 | south | 2 | west | same 2 as #8 | 7 | |
| 87 | south | 2 | north | same 2 as #8 | 8 | |



| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | cie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 66° | 80% | S 2 | 8:45 am | | 3/12/13 |
| End | 79° | 75% | SE 10 | | 3:55 | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 88 | north | 2 | north | | | |
| 89 | | | | | | |
| 90 | | | | | | |
| 91 | | | | | | |
| 92 | | | | | | |
| 93 | | | | | | |
| 94 | | | | | | |
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| 102 | | | | | | |
| 103 | | | | | | |
| 104 | | | | | | |
| 105 | west | 1 | west | | | |
| 106 | | | | | | |
| 107 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | icie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 55° | 30% | NW 5 | 8:00 am | | 3/13/13 |
| End | 66° | 60% | NE 15 | | 3:35 | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |
| 33 | | | | | | |
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| 44 | | | | | | |
| 45 | | | | | | |
| 46 | | | | | | |
| 47 | | | | | | |
| 48 | south | 1 | south | | | |
| 49 | north | 3 | stayed | | | |
| 50 | south | 1 | stayed | | | |
| 51 | | | | | | |
| 52 | | | | | | |
| 53 | | | | | | |
| 54 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|-------------|------------------|-----------|
| Project: | AAF St. Lu | icie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 55° | 30% | NW 5 | 8:00 am | | 3/13/13 |
| End | 66° | 60% | NE 15 | | 3:35 | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | north | 1 | west | didn't come | close to calling | g station |
| 62 | | | | | | |
| 63 | | | | | | |
| 64 | | | | | | |
| 65 | | | | | | |
| 66 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | cie County | , | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 55° | 30% | NW 5 | 8:00 am | | 3/13/13 |
| End | 66° | 60% | NE 15 | | 3:35 | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 88 | | | | | | |
| 89 | | | | | | |
| 90 | | | | | | |
| 91 | | | | | | |
| 92 | | | | | | |
| 93 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | icie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 48° | 20% | N 2 | 7:50 am | | 3/14/13 |
| End | 58° | 10% | N10 | | 3:25 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | | | | | | |
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| 47 | | | | | | |
| 48 | | | | | | |
| 49 | north | 1 | stayed | | | |
| 50 | | | | | | |
| 51 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|---------------|-----------------|---------|
| | AAF St. Lu | | .y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 48° | 20% | N 2 | 7:50 am | | 3/14/13 |
| End | 58° | 10% | N10 | | 3:25 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | | | | | | |
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| 76 | | | | | | |
| 77 | | | | | | |
| 78 | | | | | | |
| 79 | | | | | | |
| 80 | south | 1 | south | wouldn't get | close to statio | n |
| 81 | | | | | | |
| 82 | | | | | | |
| 83 | | | | | | |
| 84 | | | | | | |
| 85 | | | | | | |
| 86 | south | 2 | south | | | |
| 87 | north | 2 | south | same 2 as # 8 | 86 | |



| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|--------------|--------------|---------|
| Project: | AAF St. Lu | cie County | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 48° | 20% | N 2 | 7:50 am | | 3/14/13 |
| End | 58° | 10% | N10 | | 3:25 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 88 | north | 2 | west | same 2 as #8 | 7 | |
| 89 | | | | | | |
| 90 | | | | | | |
| 91 | | | | | | |
| 92 | | | | | | |
| 93 | | | | | | |
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| 106 | | | | | | |
| 107 | west | 1 | west | | | |
| 108 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | icie Count | <u>y</u> | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 46° | 20% | NNE 2 | 7:50 am | | 3/15/13 |
| End | 66° | 10% | NNE 8 | | 1:35 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |
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| 44 | | | | | | |
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| 46 | | | | | | |
| 47 | | | | | | |
| 48 | south | 1 | south | | | |
| 49 | north | 2 | stayed | | | |
| 50 | | | | | | |
| 51 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF St. Lu | icie Count | y | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 46° | 20% | NNE 2 | 7:50 am | | 3/15/13 |
| End | 66° | 10% | NNE 8 | | 1:35 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | | | | | | |
| 63 | | | | | | |
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| 86 | | | | | | |
| 87 | | | | | | |



| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|---------|
| | AAF St. Lu | | 7 | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 46° | 20% | NNE 2 | 7:50 am | | 3/15/13 |
| End | 66° | 10% | NNE 8 | | 1:35 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 88 | | | | | | |
| 89 | | | | | | |
| 90 | | | | | | |
| 91 | | | | | | |
| 92 | | | | | | |
| 93 | | | | | | |
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EXHIBIT 3 MARTIN COUNTY SCRUB-JAY SURVEY TABLES

| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|---------|
| | AAF Marti | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 73° | 10% | S 5 | 4:30 pm | | 3/11/13 |
| End | 73° | 105 | S 5 | _ | 4:55 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|---------|
| | AAF Marti | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 66° | 70% | S 2 | 7:50 am | | 3/12/13 |
| End | 66° | 70% | S 2 | | 8:15 am | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 60° | 50% | SE 10 | 12:30 pm | | 3/13/13 |
| End | 60° | 50% | SE 10 | | 12:45 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|---------|
| | AAF Marti | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 55° | 10% | N 10 | 10:05 am | | 3/14/13 |
| End | 55° | 10% | N 10 | | 10:35 am | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|---------|
| | AAF Marti | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 66° | 10% | NNE 10 | 2:55 pm | | 3/15/13 |
| End | 66° | 10% | NNE 10 | | 3:20 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 68° | 50% | S 2 | 7:45 am | | 3/18/13 |
| End | 74° | 50% | S 15 | | 3:30 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|--------------|---------------|----------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 68° | 50% | S 2 | 7:45 am | | 3/18/13 |
| End | 74° | 50% | S 15 | | 3:30 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |
| 33 | | | | | | |
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| 49 | | | | | | |
| 50 | | | | | | |
| 51 | | | | | | |
| 52 | | | | | | |
| 53 | east | 3 | south | | | |
| 54 | south | 1 | east | SJ disappear | ed when train | went by |
| 55 | | | - | TI | | <u> </u> |
| 56 | | | | | | |
| 57 | | | | | | |
| 58 | | | | | | |



| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|--------------|---------------|---------|
| Project: | AAF Marti | n County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 68° | 50% | S 2 | 7:45 am | | 3/18/13 |
| End | 74° | 50% | S 15 | | 3:30 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | | | | | | |
| 63 | | | | | | |
| 64 | west | 1 | west | | | |
| 65 | | | | | | |
| 66 | west | 2 | west | would not ge | et very close | |
| 67 | | | | | | |
| 68 | | | | | | |
| 69 | | | | | | |
| 70 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 65° | 90% | S 2 | 7:55 am | | 3/19/13 |
| End | 72° | 90% | SW 4 | | 3:15 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
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| 28 | | | 1 | | | |
| 29 | | | | | | |



| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|---|----------------|-----------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 65° | 90% | S 2 | 7:55 am | | 3/19/13 |
| End | 72° | 90% | SW 4 | | 3:15 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | SW | 2 | stayed | disappeared when train went by, came back | | |
| 31 | | | | | | |
| 32 | | | | | | |
| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
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| 38 | | | | | | |
| 39 | | | | | | |
| 40 | | | | | | |
| 41 | | | | | | |
| 42 | west | 1 | north | didn't get clo | ose and didn't | stay long |
| 43 | | | | | | |
| 44 | | | | | | |
| 45 | | | | | | |
| 46 | | | | | | |
| 47 | | | | | | |
| 48 | | | | | | |
| 49 | | | | | | |
| 50 | | | | | | |
| 51 | | | | | | |
| 52 | | | | | | |
| 53 | east | 1 | east | | | |
| 54 | SE | 1 | NE | | | |
| 55 | | | | | | |
| 56 | | | | | | |
| 57 | | | | | | |
| 58 | | | | | | |



| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 65° | 90% | S 2 | 7:55 am | | 3/19/13 |
| End | 72° | 90% | SW 4 | | 3:15 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | SW | 2 | SW | | | |
| 63 | | | | | | |
| 64 | | | | | | |
| 65 | south | 1 | south | | | |
| 66 | north | 2 | south | | | |
| 67 | | | | | | |
| 68 | | | | | | |
| 69 | | | | | | |
| 70 | | | | | | |
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| | ONSE | | | | |
|-------------------|-------------------------|--|---|---|---|
| AAF Marti | n County | | | | |
| Temp | Cloud | Wind | Time Start | Time End | Date |
| 57° | 70% | SE 2 | 7:55 am | | 3/20/13 |
| 77° | 85% | SE 8 | | 3:10 pm | |
| Direction From | How Many | Direction Left | | Observations | |
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| | Temp 57° 77° Direction | Temp Cloud Cover 57° 70% 77° 85% Direction How | JAY RESPONSE AAF Martin County Temp Cloud Cover 57° 70% SE 2 77° 85% SE 8 Direction How Direction | JAY RESPONSE AAF Martin County Temp Cloud Cover Wind Time Start 57° 70% SE 2 7:55 am 77° 85% SE 8 Direction How Direction | AAF Martin CountyTempCloud CoverWind SE 2Time Start 7:55 amTime End57°70%SE 27:55 am77°85%SE 83:10 pmDirectionHowDirectionObservations |



| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 57° | 70% | SE 2 | 7:55 am | | 3/20/13 |
| End | 77° | 85% | SE 8 | | 3:10 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | west | 2 | west | | | |
| 32 | | | | | | |
| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
| 36 | | | | | | |
| 37 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|---------|-------------------|----------------|-------------------|------------|--------------|---------|
| | AAF Marti | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 57° | 70% | SE 2 | 7:55 am | | 3/20/13 |
| End | 77° | 85% | SE 8 | | 3:10 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | | | | | | |
| 63 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: | AAF Marti | in County | | | | |
| Weather | | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 59° | 0% | NW 10 | 7:50 am | | 3/21/13 |
| End | 68° | 0% | NNW 15 | | 3:10 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------|-------------------|----------------|-------------------|---------------|----------------|----------|
| Project: | AAF Marti | in County | | | | |
| Weather | | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 59° | 0% | NW 10 | 7:50 am | | 3/21/13 |
| End | 68° | 0% | NNW 15 | | 3:10 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | | | | | | |
| 32 | | | | | | |
| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
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| 49 | | | | | | |
| 50 | | | | | | |
| 51 | | | | | | |
| 52 | | | | | | |
| 53 | east | 1 | east | flew across t | racks, E to W, | and back |
| 54 | | | | | <u> </u> | |
| 55 | | | | | | |
| 56 | | | | | | |
| 57 | | | | | | |
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| SCRUB- | JAY RESP | ONSE | | | | |
|----------------------------|-------------------|----------------|-------------------|------------|--------------|---------|
| Project: AAF Martin County | | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 59° | 0% | NW 10 | 7:50 am | | 3/21/13 |
| End | 68° | 0% | NNW 15 | | 3:10 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 59 | | | | | | |
| 60 | | | | | | |
| 61 | | | | | | |
| 62 | | | | | | |
| 63 | | | | | | |
| 64 | west | 1 | west | | | |
| 65 | | | | | | |
| 66 | | | | | | |
| 67 | | | | | | |
| 68 | | | | | | |
| 69 | | | | | | |
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| JAY RESP | ONSE | | | | | |
|----------------------------|-------------------------|--|---|---|---|--|
| Project: AAF Martin County | | | | | | |
| Temp | Cloud | Wind | Time Start | Time End | Date | |
| 50° | 5% | S 2 | 8:15 am | | 3/22/13 | |
| 73° | 70% | S 10 | | 3:15 pm | | |
| Direction From | How Many | Direction Left | | Observations | | |
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| | Temp 50° 73° Direction | Temp Cloud Cover 50° 5% 73° 70% Direction How | JAY RESPONSE AAF Martin County Temp Cloud Cover 50° 5% S 2 73° 70% S 10 Direction How Direction | JAY RESPONSE AAF Martin County Temp Cloud Cover Wind Time Start 50° 5% S 2 8:15 am 73° 70% S 10 Direction How Direction | JAY RESPONSE AAF Martin County Temp Cloud Cover Wind Time Start Time End 50° 5% S 2 8:15 am 73° 70% S 10 3:15 pm Direction How Direction Observations | |



| SCRUB- | JAY RESP | ONSE | | | | |
|-----------------|-------------------|----------------|-------------------|--------------|--------------|---------|
| Project: | AAF Marti | in County | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date |
| Start | 50° | 5% | S 2 | 8:15 am | | 3/22/13 |
| End | 73° | 70% | S 10 | | 3:15 pm | |
| Station | Direction From | How Many | Direction Left | | Observations | |
| 30 | | | | | | |
| 31 | west | 2 | west | would not ge | et close | |
| 32 | | | | | | |
| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
| 36 | | | | | | |
| 37 | | | | | | |
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| 47 | | | | | | |
| 48 | | | | | | |
| 49 | | | | | | |
| 50 | | | | | | |
| 51 | | | | | | |
| 52 | west | 1 | north | 54would not | get close | |
| 53 | | | | | | |
| 54 | | | | | | |
| 55 | | | | | | |
| 56 | | | | | | |
| 57 | | | | | | |
| 58 | | | | | | |



| SCRUB- | JAY RESP | ONSE | | | | | |
|----------------------------|-------------------|----------------|-------------------|--------------|----------|---------|--|
| Project: AAF Martin County | | | | | | | |
| Weather | Temp | Cloud Cover | Wind | Time Start | Time End | Date | |
| Start | 50° | 5% | S 2 | 8:15 am | | 3/22/13 | |
| End | 73° | 70% | S 10 | | 3:15 pm | | |
| Station | Direction From | How Many | Direction Left | Observations | | | |
| 59 | | | | | | | |
| 60 | | | | | | | |
| 61 | | | | | | | |
| 62 | | | | | | | |
| 63 | | | | | | | |
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